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AUTHOR Saljo, Roger
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ABSTRACT

Ninety Swedish teenagers and adults with varying levels of formal education were interviewed about their own learning experiences and techniques. Subjects were then asked what they actually meant by learning. The concept was variously defined as: (1) an increase in knowledge (merely a synonym for the word learning); (2) memorizing; (3) an acquisition of facts or principles, which can be retained and used in practice; (4) an abstraction of meaning; and (5) an interpretive process aimed at understanding reality. The variation in subjective conceptions of learning resembles the distinction made in research between surface-level and deep-level processing. As surface-level processes, concepts 2 and 3 depict knowledge as external and ready-made and learning as passive. Concepts 4 and 5, as deep-level processes, depict knowledge as raw material--it is the task of the learner to actively select and condense ideas. Self-reported conceptions of learning can be characterized on a shallow/deep continuum, but this relationship is symbolic, not causal. Thus, one's learning conception explains the level of processing chosen, but this level is not applied in every learning situation. (CP)

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Report from
THE INSTITUTE OF EDUCATION
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LEARNING IN THE LEARNER'S PERIODICITY

I. SOME COMMON-SENSE CONCEPTIONS

Roger Säljö

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ABSTRACT

In an interview situation 90 subjects were asked a set of questions about various aspects of their learning activities. At a late stage in this interview the subjects were asked the following question "What do you actually mean by learning?". The idea behind this question was to get an explanation of what had been taken for granted in the interview, namely the meaning of the concept of learning in an experiential perspective.

The results show that there are at least five different conceptions of learning and descriptions of these conceptions constitute the outcome of this study. It is also argued that these differences are compatible with e.g. the variation in approaches or levels of processing described in previous studies. Thus, it is concluded that the fact that people use different approaches might be related to the fact that they have different conceptions of learning.

INTRODUCTION

In studying the phenomenon of human learning it seems feasible to make a distinction between at least two different levels of inquiry or to use the terminology suggested by Marton (1978) between a first-order and a second-order perspective. As it is traditionally conceived of within educational research, the psychology of learning is devoted to studying problems such as how learning can be optimized, the relationship between motivation, intelligence, personality etc and learning, the relative effectiveness of various instructional methods, learning strategies, etc i.e. problems in a first-order perspective, meaning that we aim at a description of "the world as it is". In this paper we shall, however, explore the phenomenon of learning as it presents itself to students who are involved in education. More specifically we shall focus on what can be called people's subjective conception of learning, i.e. their conception of what learning is at an experiential level. In other words, we shall be working in a second-order perspective, meaning that we aim at a description of "the-world-as-perceived". The assumption is that such a descriptive effort will yield significant insights into distinctive features of the educational contexts which form the backgrounds of these conceptions of learning as well as into the approaches to learning employed by students.

As is well known from traditional psychological research into learning, this phenomenon is very difficult to define and delimit in any precise sense. Research into learning is mostly carried out in experimental settings and great care is taken to exclude the influence of such factors as maturation, development, fatigue, and to a large extent even meaningfulness of the material to be learnt; factors which are all considered to confound the outcome of the studies, thus yielding no exact knowledge of the process of learning itself. While it may be true that it is indeed very difficult to define learning in this analytical sense, it seems equally obvious that in the context of education the meaning of concepts like learning and knowledge can never be decided upon on the basis of a purely conceptual analysis. To gain insight into these phenomena, it is probably more essential to elaborate our understanding of the experiential side of them, i.e. how, e.g. people who are engaged in learning perceive this phenomenon. There are several reasons, epistemological, methodological and others, for advocating

this type of studies, i.e. studies of people's perceptions of significant aspects of reality instead of studying reality in an "objective" sense, but the main starting-point here has been the results obtained in our own previous research on learning within educational contexts. Before coming back to this, it should, however, be pointed out that there are a number of studies where the aim has been to describe people's perceptions of learning in educational settings in various ways. Many interesting and from a pedagogical point of view important results have emerged out of such studies.

Snyder (1968) for instance, claims that as a student one has to learn the meaning of the term learning. In his well-known study "The hidden curriculum", he attempts to show how a student must become skilled at judging what learning is all about. Thus, a major problem that university students have to cope with in order to be successful is the uncovering of the real requirements of learning in the particular context in which their learning takes place. Important issues which have to be dealt with by students concern the time and energy to be invested in various learning assignments, what parts of the course-requirements can be neglected or only very superficially attended to, the nature of the achievement tests utilized by various institutions or teachers, what kind of learning to engage in under various conditions etc. Snyder claims that the message of the hidden curriculum often stands in sharp contrast to the official proclamations made by the educational institution on the topic of learning. Miller and Parlett (1974) argue that differences in students' awareness and knowledge of this fact that what is meant by learning is indeed not given once and for all, but rather must be inferred from significant factors in the educational context, and their ability or willingness to adapt their learning to the demands, might show an interesting relationship to the marks they obtain (cf Säljö 1975, Marton et al 1977).

In the mainstream of educational research on learning there are, however, very few studies specifically aimed at exploring people's subjective conceptions of learning. The most well known is probably Perry's (1970) longitudinal study of intellectual development during college education. Perry claims that the most significant intellectual change that occurs during this period has to do with the fact that the students' conceptions of knowledge change radically. The description

of this developmental sequence is given in terms of a scheme with nine separate steps or levels, but as far as learning is concerned the most significant change seems to consist of a change from a static and absolute conception of knowledge and learning to a contextual one.

According to Perry most students when they enter college have a very simplistic and absolute conception of knowledge in the sense that they think that "... Right Answers for everything exist in the Absolute, known to Authority whose role is to mediate (teach) them. Knowledge and goodness are perceived as quantitative accretions of discrete rightnesses to be collected by hard work and obedience (paradigm: a spelling test)" (p 9). During the course of their studies, however, the students abandon this conception of knowledge in favour of a more contextual view meaning that he or she "... perceives all knowledge and values (including authority's as contextual and relativistic and subordinates dualistic right-wrong functions to the status of a special case, in context" (p 9-10). From the descriptions given by Perry it is quite evident that the activity of learning means very different things to people with these two conceptions of learning. In the first case, the task the student sets for himself seems very much to be that of memorizing discrete units of information, i.e. the answers which he sees himself as being supposed to learn, while in the second case learning seems to be mainly conceived of as attempting to understand relationships, principles etc, and as implying a more holistic and interpretative approach to the learning material. It is also interesting to note that before this change from the absolute to the contextual conception of knowledge and learning, there is a mis-match between the goals and intentions of teachers and students concerning, for instance, the purpose of teaching. To a great extent the teaching which is offered is not perceived as relevant by students, since it fails to provide them with the kind of information they see as their objective to learn.

A rather different study of learning was carried out by Colaizzi (1973). Working in a phenomenological tradition Colaizzi derived data on the nature of learning, both through "individual phenomenological reflection" and through analyses of descriptions of experiences of subjects taking part in various forms of learning activities

(e.g. motor learning, problem solving, serial learning, academic learning etc). An essential result of this study is the distinction between what is called acquisition of information and learning.

"The phenomenon of learning was seen to be distinct from activities in which information is acquired, particularly those that are traditionally studied under the heading of learning. Learning is defined by the intentional power of the learner to co-constitute both his learned-content, which is always a meaning, and a learning-situation in general: for without this intentional co-constitution by which the physical properties of a situation and its constituents are transcended the learning situation cannot exist. This intentional co-constitution expresses a structure which is not itself immediately manifest, but which appears as a constellation of attitudes, emotions, motives, techniques and values, all of which derive their significance from the context of the learner's total life as he views it during his engagement in the learning situation. Moreover, that which is learned, the learned-content, cannot be reduced to the physical properties of the material placed before the potential learner but is determined by his intentional relation to it, this relation appearing as the development of the perspectives from which the material is revealed. Without the learner's intentional co-constitution of a genuine learned-content the result of his physical presence to a situation that is designed to evoke learning will be only the acquisition of information. Finally, since the learner posits as true his learned-content, learning is an essentially existential phenomenon in that it involves the learner's taking a stand regarding reality; ultimately, then, it expresses a radically human mode of being-in-the-world, and as such it can never be understood within a system that naturalizes, i.e. strips away human qualities from, both the phenomenon of learning and the man who learns." (p 123-24)

The characteristics of learning according to this description are thus that the "learned-content" is a meaning and that the learning involves a "transcendence" of the particular situation and the physical appearance of the material and becomes an interpretation of an outside reality (in a wide sense). The activity on the part of the learner is, in the case of a learning situation, devoted to an attempt to abstract meaning and to interpret it in terms of his previous life experiences. Without this element of going beyond the learning material per se and without this process of "co-constitution" a learning situation will only result in what Colaizzi calls acquisition of information.

Working in a rather different tradition and with a different research objective, Marton and Säljö (1976a, b cf; Marton 1975 and Säljö 1975) describe a qualitative difference between people in the process

of learning which bears a close resemblance to the distinction developed by Colaizzi. In various empirical studies, aimed at investigating the process and outcome of learning and the relationship between these, it was found that as far as the outcome of learning is concerned significant qualitative differences could be observed, i.e. differences in what is learned rather than in how much. To account for these variations in the outcome, a corresponding difference of a qualitative nature in the process of learning was described. The data-base for the description of the process of learning consisted of fairly extensive interviews with the subjects regarding their approach to learning. As a result of a very detailed analysis of the subjects' own accounts of their approach to learning

"... we found basically two different levels of processing to be clearly distinguishable. These two different levels of processing, which we shall call deep-level and surface-level processing correspond to the different aspects of the learning material on which the learner focuses. In the case of surface-level processing the student directs his attention towards learning the text itself (the sign), i.e. he has a 'reproductive' conception of learning which means that he is more or less forced to keep to a rote-learning strategy. In the case of deep-level processing on the other hand, the student is directed towards the intentional content of the learning material (what is signified), i.e., he is directed towards comprehending what the author wants to say about, for instance, a certain scientific problem or principle." (Marton and Säljö, 1976a, p 7-8)

Comparing these three descriptions of learning, it can be seen that there are interesting parallels between them, in spite of the fact that they have been carried out within different theoretical frameworks and with different objectives. What is common to the two last ones in particular is an emphasis on the intentional relation between the learner and what is to be learned. Thus, surface-level processing and what Colaizzi calls acquisition of information appears to have a common element in the sense that the distinctive feature of both these concepts seems to be the focussing on the learning material per se. Similarly, the distinctive feature of deep-level processing is a "transcendence" in Colaizzi's terminology, in the sense that the learner attempts to establish a relationship between the learning material and an outside reality which he or she aims at understanding by means of the discourse. Similarly, the developmental sequence described by Perry seems to occur in the same dimension as depicted in these other studies. In particular the descrip-

tion of the absolutistic conception of knowledge bears a close resemblance to Colaizzi's acquisition of information and Marton's and Säljö's surface-level processing. Furthermore, the nature of the change which according to Perry occurs from this conception of knowledge to the contextual one seems to involve a change in the intentional relationship between the learner and what is to be learned in the sense that the learner no longer perceives his task as a mere reproduction of discrete units of information, but rather perceives construction of meaning and relationships as a prominent part of this activity.

The aim of the present study is to continue the line of research on the learning process described above. More specifically, interest is focussed upon describing people's subjective conception of learning. The background of this interest is that the level of processing that a person adopts in relation to a learning material can be thought of as having a close relationship to his conception of learning. In saying this I do not intend to claim that there is a direct and simple causal relationship between a person's conception of what learning is and the level of processing adopted in all learning situations. However, it seems fruitful to assume that, for instance, the variations described concerning people's conceptions of learning and knowledge are in some way related to and compatible with variations in approach to learning. The purpose here is, however, not to go into the difficult question of the nature and epistemological status of this relationship, but instead to contribute to the exploration of such a relationship by means of a description of variations in people's conceptions of learning.

A word of caution before discussing and interpreting the results. As in all studies using human subjects, the context of the experimental situation influences the outcome of the study. This is, of course, also the case here. Thus, the reader should keep in mind that in talking about learning, the subjects in most cases think about and refer to the kind of learning that takes place in schools. That the subjects are fairly homogeneous in this respect is, no doubt, a function of the structure of the interview itself. Many of the questions included referred to activities and problems, which are predominantly related to school situations. However, as will be seen

below, there are many subjects who view the kind of learning fostered within schools as being everything but "real learning". In pointing out the importance of the influence of the interview situation of the description given by subjects, I merely wish to make the reader alert to the fact that if the context had not been so clear in pointing to the particular kind of learning that takes place in schools, the categories might perhaps be somewhat different. Similarly, it might be the case that in describing their conceptions of learning some subjects may, in spite of this, be thinking about other kinds of activities besides those taking place in school. To summarize one should be aware of the difficulties involved in this kind of study. What will here be presented as different conceptions of the phenomenon of learning is, perhaps, also in a certain sense a description of different phenomena, e.g. school learning as compared to other forms of learning.

PROCEDURE

In trying to describe such a complex phenomenon as people's conceptions of learning there are, of course, several different methods of study which can be considered. In fact, the relationship between the method of study and the outcome of the study is very intricate in the sense that in all probability the method chosen will to a large extent determine the nature of the outcome. In other words, this implies that in order to gain knowledge in this field a variety of research approaches must be used and in comparing the results from different approaches with each other a better understanding of the phenomenon will eventually emerge.

In the present case a very direct procedure was employed to find out about people's conceptions of learning in the sense that during an interview situation, subjects were simply asked the following question: "What do you actually mean by learning?". However, this question was embedded in a context which makes it a much more natural one than what it would seem from this. The purpose of the whole interview in which this question was included was to describe various aspects of the subjects experiences of taking part in as well as observing learning in school contexts. One set of questions concerned the subject's own learning, how he set about learning, what procedures and methods he used, if he found any areas particularly difficult or easy, etc. Another set of questions concerned more general matters related to learning such as why some are better at learning than others, why some are more successful at school than others, etc. After this discussion of learning from different starting-points, the question "What do you actually mean by learning?" was put. Thus, the idea was to bring out what had been taken for granted in the discussion between the interviewer and the subject.

It should be pointed out that the interviews were carried out individually and tape-recorded. The interviews were then transcribed and the analysis based on these transcripts. Furthermore, it should be said that the interview was a part of a larger experimental situation which included among other things a learning study, but since this interview was carried out at the start of this experiment there is no need to go into closer detail concerning subsequent parts (for a description of the complete experiment, see Säljö 1979b and Marton and Säljö 1979).

SUBJECTS

The selection of subjects was made so as to achieve a considerable heterogeneity with respect to educational experiences. In all, 90 subjects took part in the study. Two different criteria were used in the selection procedure: age (two categories: Young and Adult) and level of formal education (three categories: Low, Intermediate, and High. Consequently there are six different groups, comprising 15 subjects each, taking part, as can be seen from table 1, where the designations of these different groups are given.

Table 1. Designations of groups.

Age	Level of formal education		
	Low (6-9 years)	Intermediate (12 years)	High (14 years -)
Young	YL	YI	YH
Adult	AL	AI	AH

Regarding the two age-categories, it should be pointed out that the designations Young and Adult are perhaps not quite adequate, since at least the subjects of the YI and YH groups must also be considered as adults. Rather, the main point in the distinction is that the subjects in the Y-groups, besides being younger than those in the A-groups had not had any extensive experience of work outside school. Instead, the subjects in the YL category had just finished the Swedish comprehensive school, those in the YI had just finished "upper secondary school" and those in the YH, finally, had at least two years of university studies behind them. Among the Adult categories, however, all subjects had worked for several years in various jobs and some had even reached retirement age, as can be seen from table 2 where the mean age and range of the various groups are given.

Table 2. Mean age and range (years/months).

Age	Level of formal education					
	Low Mean	Range	Intermediate Mean	Range	High Mean	Range
Y	16:3	15:7-18:1	19:10	19:6-19:11	22:8	22:4-23:7
A	33:9	27:9-43:5	44:5	36:6-73:3	43:7	36:2-55:8

One further point should be noted and that is that at the time when this study was carried out all subjects were taking part in some kind of education or were about to do so.

RESULTS

Before presenting the results of this study, one point regarding the nature of these results should be noted. What will be described below are five categories denoting what can be conceived of as basically different conceptions of learning. The procedure through which these conceptions have been arrived at is through an analysis of the answers given by the subjects to the question "What do you actually mean by learning?". The five categories are thus empirically derived and the very description of them constitutes the main result of the present study.

In giving an account of the results, these categories will first be presented and characterized in some detail. After this initial presentation, a closer scrutiny of what seems to be the main differences and similarities between the various conceptions will be made, and the status of these conceptions will also be briefly dealt with.

Conception 1: Learning as the increase of knowledge

The main feature of this first category is its vagueness in the sense that what is given in the answers is merely a set of synonyms for the word learning. Consider the following quotations:

"S: ... to learn, it's to learn new things, other things that you did not know before ...

E: ... yes, could you think of some examples?

S: Yes, a lot of the things in History and so on, you did not know about that before, and the same thing in Swedish and Grammar and so on"

(S 11 YL)

"S: To learn, that's to know that you ... yes, well ... you learn something in order to know, for the future ..."

(S 31 AL)

"S: It's that I get a certain amount of knowledge about ... and then if it's a good teacher and you kind of taken an interest in it, it sticks for a while, but then you forget it unless you don't keep up with it."

(S 49 AL)

"S: ... its to increase your knowledge ...

E: ... hmm ... could you say something further?

S: ... well, you kind of start with a small bag and there is not much in it, but then the longer you live, the more you fill it up..."

(S 71 AH)

"S: you learn things to know later on ... well you know something ..."

(S 34 YL)

As can be seen from these quotations, and as will be evident as we go on, these descriptions of learning are rather vague. What is common to them is the idea that learning is the activity by means of which you add to your previous knowledge, but no further specifications are given as to the nature of knowledge or to characteristics of the activity of learning.

Conception 2: Learning as memorizing

Several subjects quite distinctly refer to learning as being more or less equal to memorizing. Thus, the meaning of learning is to transfer units of information or pieces of knowledge, or what is commonly referred to simply as facts, from an external source, such as a teacher or a book, into the head.

"S: ... to learn?

E: ... yes ...

S: Well it's something that remains in your head and then I can produce it ...

E: What did you say?

S: To get something that remains in my head so that I can produce it when I need it ...

E: Yes ..

S: It's there... and if they ask me something I can dust it ..."

(S 13 YL)

"S: To learn ... well as I understand the word ... sort of to listen and to get it inside ... acquire knowledge, kind of ... yes, quite simply to learn it ... yes sort of to learn, to get things in one's head so they stay there."

(S 26 YL)

"S: Well, its to learn what's in the books. In principle it means to learn in order to be able to answer the questions which the teacher gives you."
(S 30 YH)

"S: Well, it's to profit by what is said. If you read a book, (then it means) to be able to profit by it and sort of keep it in your head. Some people find it easy to learn things and then it's there. Some of us others, I mean we can read something five or six times and it still doesn't stick. You forget it ... perhaps you are distracted in some way, but some have the vary good quality of being able to concentrate while they are preparing for a test. And others, they may know very much before they go in to sit for the exam, and then when they have it in front of them, then they are sort of empty..."
(S 54 AI)

"S: To learn ... yes, that's ... you have to cram up your homework and learn a little bit of this and that by heart ... well, that's about it ..."
(S 78 YL)

These quotations give a picture of an approach to learning which is very reproductive in the sense that the purpose of learning is to reproduce what is in the books or what is said by teachers. The reproductive conception of learning is also clearly observable from the language used by subjects giving descriptions belonging to this category with expressions like "get things to stick", "get it into my head", etc, being very frequent. However, without going too closely into the matter here, it could be said that the main feature of this conception is that learning is essentially seen as an activity devoted to the reproduction of pieces of knowledge.

Conception 3: Learning as the acquisition of facts, procedures, etc, which can be retained and/or utilized in practice

Compared to the previous conception, the main characteristic in this case is that an element of valuing is introduced in explaining learning. Thus, some facts, principles etc, are considered to be practically useful and/or possible to remember for a long period of time, and as a consequence of this they should be learned. As will be obvious from the quotations, an essential element in this conception of learning seems to be the negative attitude towards what is often referred to as the stereotyped routine of memorizing and

forgetting which many subjects claim to be a feature of learning in school.

"S: Yes, to learn so that you know it and so that you can make use of it. It shouldn't be just learning something which disappears immediately after you've learned it, but you should be able to make use of it even after a while..."
(S 28 YH)

"S: To learn, well its to acqu're knowledge and ... then it also means being able to use this knowledge also, of course, but you never show that. To learn, as I understood the question, directly in this way, I thought of learning ... well in principle the kind of learning you do for a test to be able to answer the questions. But then to learn that implies being able to make use of what you know ... I guess it's a wide concept really, I don't know...

E: But when it comes to studies, then you think it means ..

S: ... well I think of learning plain facts which you select from your head more or less that is, as regards studies ..., but then it is ... I mean you have to be able to use it if, let's say if you find yourself in a similar situation to the one you were in earlier or if it reminds you of it, then you should be able to pick out the correct facts so to say or the correct way to proceed..."

(S 37 YH)

"S: Yes, to learn for life, ... such as for instance ... well to learn things that you can make use of quite simply ..."
(S 64 AI)

"S: Yes, I think it should be that one sort of knows it after the test as well. Not just go on memorizing things for a test, just to get a lot of correct answers, instead I think that what I have studied I should also be able to remember afterwards so that you can have some use of it later on ... I mean you can very well get it ..."

(S 68 YL)

"S: By learning things I mean being able to remember and combine knowledge, being able to apply it. That is where the greatest shortcoming is, I mean even if you know something you have to be able to apply it ..."

(S 83 AH)

A common characteristic of this conception and the previous one (learning as memorizing) is that the nature of what is learned seems to be very much the same, i.e. there are "pieces of knowledge" which the learner should attempt to memorize. At least no attempt is made to change or

modify this view of the nature of what is learned. As will be seen from the following it is precisely with respect to this question of the nature of what is learned that the remaining two conceptions differ from the two previous ones. However, in adding that what you learn should be possible to remember and/or use in practice, these descriptions reflect the view that what makes knowledge useful is whether or not you can make use of it outside the narrow educational context.

Conception 4: Learning as the abstraction of meaning

Compared to the previous two categories the distinctive characteristic of this conception is that the nature of what is learned is changed. Learning is no longer conceived of as an activity of reproducing, but instead as a process of abstracting meaning from what you read and hear. As can be seen from the quotations, this implies a rather different relation to the learning material in the sense that subjects no longer expect to find ready-made answers which can be memorized; instead, it is the task of the learner to actively select and condense ideas, principles, procedures, etc, which are to be learned and understood.

"S: For me, personally, learning does not mean that you should learn all those petty details, but instead it means learning about a course of events and how things have developed, and reasoning within my subject but it does not mean sitting and memorizing trifles such as dates and such things as many people do ... all those names and what have you ... I consider that's what handbooks are for, they should be used for such purposes."

(S 7 YH)

"S: To begin with there are different kinds of learning ... Let's say, first learning from a text ... You can learn a text but you still don't know what it means. Then I think there is something wrong with one's learning in some way. Learning should mean that you get something out of what you read, you see what I mean ... You noticed when you took your driving licence, just to take one example, that there were some who had learned it all by heart and then they rattled off a lot of things ... but then when he fastened onto something and said 'what do you mean by that' ... then no, they didn't have the slightest idea. But that's the risk when they grind and grind, as it were ... one shouldn't grind, one should take one thing at a time and try to get it to really sink in and really think it through: 'what have I just read'. Then I think it is real learning ..."

(S 10 YH)

"S: Yes, to learn ... well it is not just a matter of learning facts. It is also to understand, to see contexts and to be able to use knowledge to draw conclusions, to think independently. That's what I think it is ..

E: Yes... was that what you learned at school?

S: Yes, I think I learned that at school ... well perhaps everyone doesn't learn that, but I think I have ...

E: ... you can learn it then ...?

S: Well, I don't think that anyone really tells you this ... I mean it isn't really the teachers who teach you this, but I guess you can say it comes as a by-product of all the rest I think ..."

(S 73 YI)

"S: Well, that can be very different ... do you mean learning in a general sense?

E: ... yes ... to learn, if I say that, what do you think of then?

S: It's when you learn something, main points of a text so that you sort of understand it and yes ... well, you are able to criticize it and suggest alternatives or something like that."

(S 75 YH)

As can be seen, three of the quotations selected to illustrate this conception of learning explicitly refer to the fact that learning is not equal to memorizing or rote-learning, but rather learning aims at the understanding of contexts, main features, main ideas etc, of a discourse. Thus, the reproductive nature of learning is replaced by a conception which emphasizes that learning is a constructive activity. The learning material is not seen as containing ready-made knowledge to be memorized, but rather it provides the raw material or starting-point for learning.

Conception 5: Learning as an interpretative process aimed at the understanding of reality

This conception of learning is very similar to the previous one in the sense that the picture which is supplied in the descriptions concerning the nature of what is learned is very much the same. The reason for making a further distinction is that some subjects emphasize that an essential element of learning is that what you learn should help you to interpret the reality in which you live.

"S: Yes, learning that means to get the sort of insight into your subject so that you can use it in your everyday life. From a historical point of view, if we take an example, you learn an enormous amount from the different cultures which

have existed, how they arose, how they were at their peak ... how they became weaker as time went by and disappeared, and that's very interesting to follow because very often there are rather similar reasons for rises and falls and you can't disregard the fact that this is something which means very much when you look at the world around you, I mean at what is happening ..."

(S 85 AI)

/On accounting for his own methods of studying S presents his own conception of learning in more general terms./

"S: ... there are some technical points. I usually make summaries quite simply and yes, well a lot of such things. I mean I read and underline and maybe I also write summaries, I very much like to make drawings or pictures in some way, in which I attempt to illustrate the content. That's some kind of technical side of it. Then what's most important really, that's the connection between what I read and what I do and see otherwise during the days. I guess I have discovered this in some way, I guess it's the strategy. I've worked a little bit with problems like these in companies ... I mean with problems of learning and teaching new things and then I have tried to ... well if you don't see connections between what you read and your own situation, not very much will happen really. In some way I think I've found out that you learn things twice somehow. The first time could have been at school really, the second time is the connection, I mean it becomes conscious in some way ...

E: What do you actually mean by learning?

S: Yes ... nowadays I often occupy myself with this sort of thoughts and in some way I find that to learn for me ... I usually come to the conclusion that it is, so as to say, both knowing and doing in some way. I can ... I have sort of discovered I think that in school these two aspects are more or less are kept apart, I mean the difference between ... yes well being able to explain something or being able to describe in theoretical terms what something is like on the one hand ... but then I mean you've not really learnt it until you do it in some way. Personally, I have not learnt this business with cigarettes, I go on (smoking) although I know ... and then I mean I haven't learnt it. I suppose that keeps me occupied ... I kind of live with this problem rather intensively, I mean that it should be related to some kind of practice. That's when you have learnt it, I think, terribly much. Then you can live ... I mean you can sort of be your knowledge in some way. Then, then the really important thing has happened ..."

(S 58 AH)

"S: Yes, well it's to understand the problems and grasp the meaning and then be able to ... well, take Business Administration as an example, to be able to define the problems and then solve them ... and this is what your studies should help you to do. It is not a bit like, for example, learning a psalm ..

E: What's the difference do you think?

S: Yes, well I think the difference is obvious. Its very much like understanding the point of democracy, I mean you can't learn that by learning all the different political opinions which exist ..."

(S 87 AH)

To summarize the empirical part of this study, it seems as if learning is defined differently by different people. Among the 90 subjects taking part in this study, five different conceptions emerged.

1. Learning as the increase of knowledge.
2. Learning as memorizing.
3. Learning as acquisition of facts, procedures, etc, which can be retained and/or utilized in practice.
4. Learning as the abstraction of meaning.
5. Learning as an interpretative process aimed at the understanding of reality.

An interesting question at this point is of course the nature of the differences between these conceptions. In view of our previous research, it is particularly interesting to relate this description to those differences regarding the process of learning described earlier. To be very brief, there seems to be at least two fundamental differences underlying the various conceptions. The first of these concerns what could be called the intentional relationship between the learner and what is to be learned. A prominent feature of especially the second conception described above is the idea that knowledge is external to individuals and that the process of learning essentially means a more or less verbatim item-by-item transfer of knowledge from an external source into the heads of the learners where it is filed. In contrast, the essence of conceptions 4 and 5 seems to lie very much in an emphasis on the assumption that knowledge is construed by individuals as a result of an active effort on the part of the learner to abstract meaning from a discourse and also to relate this meaning to an outside reality.

Closely related to this distinction is the second difference which seems to underly the observed variation in conceptions of learning and that is the different assumptions regarding the nature of what is learnt, or in the words of Colaizzi, the learned content. As was just pointed out, conceptions 2 and 3 seem to be based on the idea that knowledge already exists "out there" in books, lectures, etc, and, furthermore, that this knowledge is structured and divided into suitable units which can be learned exactly as they appear. In the case of conceptions 4 and 5 on the other hand, what is learned is the meaning which the learner manages to get out of the discourse. With respect to how this meaning is generated, conception 4 involves an emphasis on grasping the meaning of a learning material per se, while in conception 5 it is implied that this meaning is a result of confronting previous experiences with what is read and heard in learning situations.

DISCUSSION

Thus, it can be seen that the variation in subjective conceptions of learning - as defined and studied here - bears a very strong resemblance to the research discussed earlier. For instance, it seems as if the qualitative variation in subjective conceptions of learning, between conceptions 2 and 3 on the one hand and 4 and 5 on the other has a strong resemblance to the corresponding distinction between surface-level and deep-level processing described by Marton and Säljö. This would then indicate that it might be fruitful to assume that the fact that people employ either of these strategies has to do with their general conception of what knowledge and learning is. In asserting this we are in fact suggesting an alternative framework in terms of which learning approaches can be interpreted. Instead of as, is traditionally done, attempting to relate people's approaches to learning to a set of variables such as intelligence, personality, etc, we advocate the view that they can be understood in terms of people's conceptions of learning.

There is however, no reason for regarding the relationship between a person's conception of learning and the level of processing adopted as a simple and mechanic one. Indeed, we should like to argue that this relationship is of a symbolic rather than a causal nature. Thus, what is being argued is that the level of processing or approach that a person employs may be understood or interpreted in terms of his or her subjective conception of learning. However, it is obvious that the fact that a person represents a certain conception of learning e.g. in this investigation, does not mean that he will employ a particular level of processing or approach in every conceivable learning situation (cf. Säljö 1979b). In the present case we should like to offer at least two different reasons for emphasising the symbolic nature of this relationship.

First, there is an interesting difference between the various conceptions in the sense that conceptions 3, 4 and 5 seem to involve an increasing degree of awareness of the fact that the concept of learning is complex and that it can be given various interpretations. (for a more detailed description of this growing awareness of the phenomenon of learning, see Säljö 1979a). Several of the quotations given to illustrate these conceptions give evidence of the fact

that the subjects consider the approach to learning most frequent at school, according to their view, as being too restricted. This implies that some subjects, perhaps as a result of extensive educational experiences, are in a position where they have started to reflect on their own approach to learning and it seems highly probable that they as a consequence of this are able to make a conscious choice as how to approach a particular learning situation. Should this be true it is of course highly unlikely that someone, who in this study has given a description of learning classified as belonging to category 4 or 5 should not be able to engage in pure memorizing if he for some reason such as time pressure, task difficulty etc, sees this as an adequate method in a particular situation (cf Säljö 1979b).

Second, there is a point of great principal importance involved in this matter. By tradition it is very natural for educational researchers working in a psychological tradition to think of their findings as concerning people's behaviour and thinking in terms of individual psychological characteristics. However, it is doubtful whether this mode of thinking is fruitful in furthering our knowledge about learning as an educational phenomenon. Instead of studying learning in this traditional perspective, we should like to advocate the need for descriptive research taking the experiential side of learning as its starting point. In this alternative perspective it will become obvious that we in fact know very little about learning as an educational phenomenon. The fact that we use one concept to refer to such different activities as when animals learn to press a lever at a given signal and when people learn about reality through written or oral discourse does not mean that knowledge concerning the first phenomenon will tell us very much about the second. To develop knowledge about this second phenomenon, referred to as learning, we need to find out and describe as accurately as possible what people are in fact doing when we claim that they are learning. The contribution of the present study has been to point out that people seem to have very different conceptions of what learning is all about. It might be fruitful to assume that this affects both how people approach a learning task and what they manage to get out of it.

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